Abstract of the Disclosure

A switching control signal generating circuit for reducing glitches from occurring in a charge pump during switching. Additionally, a phase locked loop including the charge pump is provided. The switching control signal generating circuit obtains a time difference in output signals based upon the signals input to the generating circuit. Combining the switching control signal generating circuit with a charge pump reduces glitches during switching. Similarly the jitter in the output signal of a phase locked loop, using the charge pump, can be reduced.